

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 April 2004 (22.04.2004)

PCT

(10) International Publication Number  
**WO 2004/034023 A2**

- (51) International Patent Classification<sup>7</sup>: **G01N** CA 91711 (US). GRIBBLE, Gordon, W. [US/US]; 15 El-dridge Street, Lebanon, NH 03766 (US).
- (21) International Application Number: PCT/US2003/031988
- (22) International Filing Date: 8 October 2003 (08.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/417,569 10 October 2002 (10.10.2002) US
- (71) Applicant (*for all designated States except US*): TRUSTEES OF DARTMOUTH COLLEGE [US/US]; Technology Transfer Office, 11 Rope Ferry Road, Hanover, NH 03755-1404 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): MOSKALEV, Nikolai V. [RU/US]; 750 West Bonita Avenue, #42, Claremont,
- (74) Agents: LICATA, Jane, Massey et al.; Licata & Tyrrell P.C., 66 East Main Street, Marlton, NJ 08053 (US).
- (81) Designated States (*national*): CA, JP, US.
- (84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).
- Published:**  
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHODS OF SYNTHESIZING 3-AMINO-1,2,4-BENZOTRIAZINES

(57) Abstract: An improved method of producing 3-amino-1,2,4-benzotriazines using nitrobenzene or a derivative thereof, a guanine salt and a base as reactants is provided. The method is carried out at a moderate reaction temperature without producing halide wastes derived from nucleophilic substitution and acid byproducts.

WO 2004/034023 A2